



101003-001

March 31, 2005

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Attn: Art Unit 2826 - Thomas L. Dickey
From: George O. Saile, Reg. No. 19,572
28 Davis Avenue
Poughkeepsie, N. Y., 12603

Subject: | Serial No.: 10/802,563 03/17/04 |

Hong Yu Yu et al.

A-THERMAL ROBUST SEMICONDUCTOR DEVICE
USING HFN AS METAL GATE ELECTRODE
AND THE MANUFACTURING PROCESS THEREOF

| Art Group: 2826 Thomas L. Dickey |

RESPONSE TO RESTRICTION REQUIREMENT

This is in response to the Restriction or Election
Requirement in the Office Action dated 03/18/05. In that
Office Action, restriction was required to one of two stated

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being
deposited with the United States Postal Service as first class
mail in an envelope addressed to: Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450, on April 8, 2005.

Stephen B. Ackerman, Reg. # 037761 USA

Signature/Date Stephen B. Ackerman 4/8/05

Inventions under 35 U.S.C. 121. The Inventions stated are Group I - Claims 8-27 to a process, classified in Class 438, subclass 216 and Group II - Claims 1-7 and 28-34 to a device, classified in Class 257, subclass 410.

Applicant provisionally elects to be examined the Invention described by the Examiner as Group I - Claims 8-27 drawn to a process classified in Class 438, subclass 216. This election is made with traverse of the requirement under 37 C.F.R.1.143 for the reasons given in the following paragraphs.

The Examiner is respectfully requested to reconsider the Requirement for Restriction given in the Office Action. The Examiner gives the reason for the distinctness of the two inventions as (1) that the process as claimed can be used to make other and materially different products or (2) that the product as claimed can be made by another and materially different process (MPEP 806.05(f)). However, upon reading the product Claims against the process Claims one can readily see that the product Claims are directed to "a semiconductor structure" and the process Claims are directed to "a method for fabricating a semiconductor device structure", it is necessary to obtain claims in both the product and method claim language. The method Claims necessarily use the product and vice versa. The field of search must necessarily cover both the method

class/subclass 438/216 and products class 257/410 in addition to other related Classes and subclasses to provide a complete and adequate search. The fields of search for the Group I and Group II inventions are clearly and necessarily co-extensive. The Examiner's suggestion that "In the instant case unpatentability of the Group I process invention wouln not necessarily imply unpatentability of the Group II product invention, because the Group I process invention could make a materially different device from that of the Group II invention. For example, the processes of claims 8 and 16 could be used to make a device having a gate electrode comprising a HfN material in which the ratio of Hf to N is greater than one and having an SiO gate dielectric, a device materially different from the device of claims 1 and 28. In the special cases of claims 13 and 21 onely, unpatentability of the Group II product invention would not necessarily imply unpatentability of the Group I process invention, because the product of the Group II invention could be made by a materially different process from the invention by claims 13 and 21. For example, the product of claim 1 could be made by a process which does not include a step of adjusting the work function of the gate electrode, a process materially different from the processes of calim 13 and 21", is very speculative and really has nothing to do with the Claims as presented in this Patent Application. Further, it is respectfully suggested that these

reasons are insufficient to place the additional cost of a second Patent Application upon the Applicants. Therefore, it is respectfully requested that the Examiner withdraw this restriction requirement for these reasons.

Withdrawal of the Restriction Requirement and the Allowance of the present Patent Application is requested.

Sincerely,



Stephen B. Ackerman, Reg.# 37761